



***Significance of the global team in effective
problem solving***

Contemporary Challenges: Making a Difference

Assignment 2

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Content Page

Section 1 – Notes relating to the Presentation (Including the link to the presentation)	Pg. 3 to 6
Section 2 – Reflection on the process Using Gibbs Reflective Cycle.....	Pg. 7 to 10
References	Pg. 11 to 12
Appendix	
• Appendix 1 - Plan for the presentation – who did what section	Pg. 13

Section 1 – Notes on the Presentation

Wicked problem

The incessant use of single-use plastics and their subsequent disposal have created a catastrophe that shows no signs of abating and has the globe scrambling to find a solution. The preference for ease of use that pervades society, in conjunction with the pervasiveness of single-use plastics in our day-to-day activities, has resulted in an environmental crisis of startling proportions. This article sheds light on the far-reaching repercussions of society's constant disposal of large volumes of single-use plastics and discusses the varied issues that are faced by those challenges. Additionally, this essay emphasizes the critical need for complete solutions. Plastics designed for a single application have made their way into almost every facet of modern life. Everything from the plastic bags we get at the grocery store to the silverware we get at fast-food restaurants is meant to be used just once before being thrown away. These products are often discarded not long after their initial usage. In spite of the clear convenience they provide, the damage they cause to the environment is disastrous.

One-time-use plastics have an enormous, direct effect on the natural world. These plastics don't break down for hundreds of years, so they keep piling up in our landfills, seas, and rivers. The buildup of plastic garbage, especially in marine areas, causes disruption to ecosystems, kills species, and reduces water quality. Particularly worrisome are microplastics, which are the very small pieces of plastic that can be released into the environment when bigger plastic products break down. These little pieces of plastic pollute our seas and eventually end up in our food supply. They have the potential to affect human health if they make it into our plates. It's scary to consider what may happen if people start eating these little plastic pieces.

Second, the manufacturing of single-use plastics has a substantial negative influence on the natural world and leads to the exhaustion of natural resources. In order to manufacture these polymers, we place a significant amount of reliance on the exploitation of fossil fuels like oil and natural gas. Because of this, not only are important resources being depleted, but also our reliance on nonrenewable sources of energy is being maintained. Additionally, contributing to the severity of the problem is the fact that the production process for single-use plastics requires a lot of energy. The use of fossil fuels in this process results in the generation of greenhouse gas, which is a contributor to the current state of climate change. These

emissions are a major contributor to the warming of our planet and have far-reaching implications for the functioning of our ecosystems as well as our weather patterns.

Due to this, the disposal of single-use plastics not only has an impact on the natural environment but also places a huge financial burden on society as a whole. Municipalities spend millions of dollars each year on trash management and cleaning up litter, diverting resources that could be put towards addressing other urgent issues facing the public. In addition, businesses that are dependent on thriving ecosystems, such as tourism and fishing, are negatively impacted when the environment is degraded owing to the presence of plastic pollution. The accumulation of discarded plastic in our seas and streams is detrimental to marine life, causes disruption in ecosystems, and lessens the allure of popular vacation spots.

Design thinking

A serious environmental issue that has far-reaching repercussions has been brought on by the unrelenting use and disposal of single-use plastics by society. To effectively address this problem, a comprehensive strategy is required, one that incorporates government laws, industry innovation, consumer education, and international cooperation, among other things. In this article, we will investigate real solutions to the problems caused by the ongoing disposal of single-use plastics, and we will look at ways to alleviate the effects of these problems.

When society attempts to tackle this problem, the government plays a critical role. Bans or limitations on some single-use plastic goods like bags, straws, and cutlery are one approach for government efforts that may be implemented everywhere in the world. Such actions have been shown to be helpful in lowering plastic waste and increasing the use of more eco-friendly alternatives. Second, imposing new fees or levies on the manufacturing and distribution of single-use plastics is one way to reduce demand for these products while funding conservation efforts. This strategy may encourage people to make environmentally beneficial choices. Thirdly, EPR programmes ensure that producers are responsible for their goods during their full lifespan. Responsibility for product recycling and disposal provides an incentive for manufacturers to create eco-friendly goods. Last but not least, governments should finance extensive recycling infrastructure to facilitate plastics recycling by the general public. Recycling rates may be raised by making recycling facilities more easily accessible, implementing curbside pickup programmes, and launching public education initiatives.

Therefore, consumer education and participation play a significant role in these challenges. First, we should encourage the use of reusable options. It is essential to spread information about the benefits of using reusable options like cloth bags, stainless steel water bottles, and glass containers. The public may be educated about the environmental and financial benefits of these options through campaigns. Second, spreading knowledge and understanding. People may be made aware of the damage that single-use plastics due to the environment through educational campaigns in classrooms, the media, and the internet. Consumers who have more information are more inclined to make ethical purchases. Finally, regarding consumer options, product labels that include information about their environmental effect, such as a "plastic footprint," help shoppers make educated judgements. When given the facts, consumers are more likely to opt for more sustainable options.

Consumers are also able, thanks to innovations in the industry, to lessen this impact. The industry needs to come up with ground-breaking new packaging. The packaging sector has the potential to be a change agent by providing environmentally friendly packaging solutions, such as biodegradable materials, compostable packaging, and reusable packaging systems. Putting money into environmentally friendly packaging is good for both the environment and for businesses. In addition, encouragement for alternatives to the use of plastic. By providing financial incentives, subsidies, or tax breaks in exchange for the use of sustainable materials, governments, and other organizations may encourage firms to make the switch to environmentally friendly alternatives. This assistance encourages innovation as well as the adoption of practices that are friendlier to the environment. Last but not least, investments in research and development are very necessary for the development of alternative materials and technologies that are capable of successfully and sustainably replacing single-use plastics. The ability to innovate is essential for locating viable alternatives.

The reduction of a single problem with plastic trash presents a number of challenges, but international collaboration presents a wide variety of chances to address these challenges. Because the problem of pollution caused by plastic is worldwide in scope, international collaboration is required. Last but not least, international agreements and collaborations should encourage international efforts for cleaning up oceans and coastlines, which are disproportionately affected by plastic pollution. This is because international agreements and collaborations can facilitate the sharing of knowledge and best practices, which in turn fosters a unified approach to combating plastic pollution. Initiatives aimed at cleaning up the entire planet are evidence of a concerted effort to solve the problem.

In conclusion, the obstacles that are presented by the persistent disposal of plastics intended for a single use by society are intimidating, but they are not insurmountable. We can collaboratively strive towards a future in which throwaway plastics are a relic of the past if we put into action the ideas mentioned in this article and acknowledge that we all share a duty to maintain our environment. If we do this, we can work towards a future in which we can safeguard our environment. The route that leads to a world that is more sustainable and freer of plastic is one that calls for concerted work, unwavering perseverance, and a dedication to leaving a better planet for the generations who come after us. The moment for action is now, and the natural environment as well as society as a whole will benefit from our efforts in the future.

Link to the presentation video:

<https://1drv.ms/v/s!Aq6qlmxwOx6sjwgofvJt7b8QHlIR?e=hUuUeg>

Section 2 – Reflection

The Gibbs Reflective Cycle is a versatile model that may be altered to suit the needs of a wide range of professions and settings. It encourages individuals to think critically about their experiences and to continually improve their practise by incorporating lessons learnt from reflection. It also encourages individuals to reflect on what they have learned from their experiences. It is frequently utilised in professional development, with the goal of assisting employees in becoming more productive and self-aware in their respective professions. The Gibbs reflective cycle is broken down into its constituent parts, which are as follows: a description, feelings, evaluation, analysis, conclusion, and action plan. At each level, the individual is given questions that are intended to provoke profound and in-depth meditation on the experiences they have had up to that point.

Description

The usage of disposable plastics is ubiquitous. Included in this category are things like plastic bottles, straws, and other packaging materials. Each year, millions of tonnes of this type of plastic are manufactured and then wasted over the world, resulting in severe environmental damage. According to data compiled by the nonprofit Minderoo Foundation for its second Plastic Waste Makers Index, published in 2023 (Hilary Whiteman, 2023), the world produced 139 million metric tonnes of single-use plastic waste in 2021, an increase of 6 million metric tonnes from 2019, when the first index was published. This plastic has been used in a wide range of activity by humans. One of them were in packaging material such as retail packaging and food packaging. The food sector relies heavily on the use of plastic for packaging. It includes things like plastic bags, the shrink wrap that is placed on vegetables, plastic containers that are used for deli products storage, and the plastic film that is used to secure trays of meat and poultry. Secondly, food and beverage containers like bottles and takeout containers. Water, soft drinks, and several other liquids are frequently consumed out of plastic bottles that are only intended for a single use. The plastic known as PET (polyethylene terephthalate) is frequently used to make these bottles. For the takeout containers like takeaway and delivery, restaurants and fast-food companies employ single-use plastic containers. These containers are usually polypropylene or polystyrene. Lastly, a disposable product like straws, plastic cutlery, plates and cups, plastic bags, and plastic bags. These are just a few ways we use and discard single-use plastics. The environment is threatened by society's single-use plastic waste. It needs rapid action from people, companies, and governments. We must limit our usage of single-use plastics and promote sustainable alternatives as consumers and citizens.

Feelings

The dilemma of single-use plastic garbage is not just an environmental issue; it also evokes strong feelings in people who see its disastrous effects firsthand. This article explores the feelings prompted by people's increasing awareness of the harm caused by the overuse and reckless disposal of single-use plastics. When people learn how widespread plastic pollution is, hopelessness is a frequent reaction. People may feel helpless when they see photos of marine life trapped in plastic or of beaches covered in trash. Realising the damage being done to Earth causes a great sense of despair. Finally, the suffering of animals due to plastic pollution causes many people to feel compassion and sorrow. Images of marine turtles entangled in plastic rings or of birds choking on plastic debris can be upsetting. Sadness and a strong need to shield these creatures from further damage result from seeing their ordeal. The issue of society's ongoing disposal of single-use plastics elicits a wide range of strong emotional responses. There is a wide spectrum of emotions, from helplessness and agony to worry, dissatisfaction, and hope. These feelings highlight the critical nature of resolving the issue at hand and the necessity of concerted community effort. Using these emotions constructively can motivate people to work towards a world free of the dangers posed by single-use plastics to our planet and its inhabitants.

Evaluation

One of the primary areas of evaluation centers on the environmental harm caused by single-use plastics. The review shows that plastic trash is harming marine and terrestrial ecosystems, species, and habitats. Single-use plastics' health concerns are a key evaluating factor. Plastics leak toxic chemicals into the environment as they break down, which may damage humans. The examination asks about plastic's long-term health effects. The single-use plastic trash catastrophe review is thorough and necessary. It shows our practices' broad environmental, economic, and health impacts. However, it also finds good transformation opportunities. We can make educated decisions, advocate for sustainable alternatives, and work together to lessen the negative impact of single-use plastics by critically examining the issue.

Analysis

At the center of the study is the conflict between what's best for consumers and what's best for the earth. Single-use plastics are very easy to use and cheap, which makes them a good choice for customers. But this ease comes with long-term pollution, which shows how important it is to find a balance between comfort and environmental duty. A study of the problem shows that business practises are a major reason why single-use plastics are still used. Profits have been made by companies that make and sell throwaway things in large quantities. This economic motivation makes people less likely to switch to more sustainable options and makes them more likely to use plastic. The analysis also looks into the rules and policies that affect single-use plastics. Laws aren't always clear, and it's hard to make sure that the ones that are in place are followed. To make good policy answers, it is important to know what these problems are. Lastly, the research shows how new ideas and environmentally friendly options can help solve the plastic problem. Biodegradable materials, improvements in recycling, and moves towards items that can be used more than once are all good ways to cut down on plastic trash.

Conclusion

A detailed analysis of the single-use plastic trash situation shows that quick and consistent action is needed. This conclusion emphasizes the urgency of the issue, summarizes significant results, and suggests ways people, companies, and governments may usher in a more sustainable future. The conclusion stresses the importance of individuals in transformation. Each person may help by eliminating single-use plastics, recycling, and making educated purchase decisions. Personal responsibility is important to solving this situation. Technological advances in recycling, materials science, and trash reduction provide promise. These inventions can help create a sustainable future. Final remarks on single-use plastic trash are a rallying appeal. It inspires communal action via analysis, emotions, and assessment. This appeal and meaningful actions may lead to a more sustainable, responsible, and plastic-free society and a legacy of stewardship for future generations.

Action plan

After assessing single-use plastic waste's difficulties and emphasizing its importance, create action strategies. This article will outline how people, companies, and governments can fight the plastic catastrophe and create a more sustainable future. Reduce Personal Plastic Footprint. One may start by decreasing their plastic impact. This action plan promotes reusable alternatives, single-use plastic reduction, and eco-friendly lifestyles. Simple improvements like using reusable bags and bottles may make a big difference. Second, promote policy changes. Advocacy may alter things. Citizens can advocate for local, regional, and national policy changes at the grassroots level. This includes supporting laws to limit single-use plastics, expand producer accountability, and encourage eco-friendly product development. Lastly, hold industries accountable. Advocacy organizations and consumers may hold industries responsible for plastic use. This action plan includes boycotts, shareholder activism, and forcing firms to be more sustainable.

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Appendix

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- Decision-making frameworks and techniques.
- Recognising individual differences and the role of emotional intelligence in the management of conflict.
- The role of ethics in identifying solutions.

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- Wicked problems': the challenge of difficult or impossible problems where the affecting variables are not known or quantifiable.
- Design Thinking to investigate, define, propose, and evaluate problem solutions.
- Conclusion

Mohammad Fattah Jamalullail Bin Mohd Farid (2244739)

- The role of diplomacy, persuasion, and negotiation in effective collaboration.
- The significance of interdisciplinary thinking in finding effective solutions to problems.
- Collective decision-making.